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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,956	11/27/2001	Mariko Shozui	HITACHI-0028	1740

7590 08/26/2005

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EXAMINER	
INGBERG, TODD D	

ART UNIT	PAPER NUMBER
2193	

DATE MAILED: 08/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/994,956	SHOZUI ET AL.	
	Examiner	Art Unit	
	Todd Ingberg	2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 June 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 November 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6/6/02*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claims 1 – 32 have been examined.

Information Disclosure Statement

1. The Information Disclosure Statement filed June 6, 2002 has been considered.

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file. The effective filed date is June 26, 2001.

Double Patenting

3. Claims 1 – 34 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 – 20 of copending Application No. 10/016,209. Although the conflicting claims are not identical, they are not patentably distinct from each other because The instant invention is a subset of the co-pending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1 – 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Object Engineering Designing Large-Scale Object-Oriented Systems by Gary C. **Scullo** published April 1994 in view of USPN # 5,493,489 **Tamaki** et al issued February 20, 1996.

Motivation to Combine
Scullo teaches the underlying theory of Information Engineering but the text book is not an implementation. The Tamaki reference being a presumed valid U.S. Patent teaches an invention reduced to practice. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the 1994 teaching of Scullo with the 1991 filed Tamaki reference because Information Engineering enables one to identify and develop well defined interfaces among components.

Claim 1
Scullo teaches a method of designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303), comprising the steps of:
determining a predetermined set of activity names in a predetermined sequence (**Scullo**, page 300, processes & Tamaki, col2 , lines 30 – 40, activities) , the activity names respectively representing certain service operations (**Scullo**, page 300, processes & **Tamaki**, col2 , lines 30 – 40, activities) ; displaying the activity names as information provider activity names and information consumer activity names (**Scullo**, page 300, data flows to identify producers and consumers) according to the predetermined sequence in a predetermined data flow definition (DFD) matrix format (**Scullo**, page 300, process/matrix form) ; specifying an information name, (**Scullo**, page 300, processes, data stores and data flows & **Tamaki**, Figure 4) (**Scullo**, page 300, identifying the processes, data stores and data flows & **Tamaki,** col 1, lines 10 – 15)
one of the information provider activity names and a corresponding one of the information consumer activity names (**Scullo**, page 300, data flows to identify producers and consumers) , the information name at a position in the predetermined DFD matrix format (**Scullo**, page 283 DFD) representing data (**Scullo**, page 300, processes, data stores and data flows & **Tamaki**, Figure 4) to be transmitted from the information provider activity name to the information

consumer activity name (**Scullo**, page 300, processes, data stores and data flows & **Tamaki**, Figure 4) ; and storing the relations among the information provider activity names (**Scullo**, page 300, processes, data stores and data flows & **Tamaki**, Figure 4) , the information names and the information consumer activity names in an entity relation (ER) source information file (**Scullo**, page 300, Process-Sequence Diagrams). **Scullo** teaches the ER diagram for identifying data stores but does not teach the theory reduced to practice. It is **Tamaki** who teaches the implementation by implementing the matrix in rows and columns (stored on a disk) (**Tamaki,** col 1, lines 10 – 15), Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the 1994 teaching of Scullo with the 1991 filed Tamaki reference because Information Engineering enables one to identify and develop well defined interfaces among components

Claim 2
The method of designing an information flow process according to claim 1(**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) further comprising additional steps of: modifying the activity names (**Scullo**, page 300, processes & Tamaki, col2 , lines 30 – 40, activities) ; and updating said displaying of the activity names in the predetermined DFD matrix format (**Scullo**, page 300, process/matrix form) ; and storing the modified activity names in the ER source information file(**Scullo**, source information file).

Claim 3
The method of designing an information flow process according to claim 1 (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) further comprising additional steps of: modifying the predetermined sequence(**Scullo**, page 300, Process-Sequence Diagrams) for the activity names(**Scullo**, page 300, processes & Tamaki, col2 , lines 30 – 40, activities) ; and updating said displaying the activity names in the predetermined DFD matrix format (**Scullo**, page 300, process/matrix form) according to the modified predetermined sequence ; and storing the modified predetermined sequence of the activity names in the ER source information file (**Scullo**, source information file).

Claim 4
The method of designing an information flow process according to claim 1(**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) further comprising additional steps of: modifying the information names ; and updating said displaying of the information names in the predetermined DFD matrix Format (**Scullo**, page 300, process/matrix form) ; and storing the modified information names in the ER source information file (**Scullo**, source information file).

Claim 5
The method of designing an information flow process according to claim 1(**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) further comprising additional steps of modifying the positions of the information names; and updating said displaying the information names in the predetermined DFD matrix format (**Scullo**, page 300, process/matrix form) at the modified positions; and storing the modified positions of the information names in the ER source information file. (**Scullo**, source information file)

Claim 6
The method of designing an information flow process according to claim 1(**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) further comprising additional steps of further determining associated detailed activities of a selected one of the activity names; updating said displaying the activity names(**Scullo**, page 300, processes & Tamaki, col2 , lines 30 – 40, activities) in fire predetermined DFD matrix format (**Scullo**, page 300, process/matrix form) based upon the associated detailed activities; and storing the activity names with the associated detailed activities in the ER source information file. (**Scullo**, source information file)

Claim 7
The method of designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) according to claim 6 wherein said further determining step additionally includes the steps of preparing a structure data flow (SDF) input screen based upon the ER source information file; and receiving user input data for the associated detailed activities via the SDF input screen. (**Scullo**, page 300, Process-Sequence Diagrams).

Claim 8
The method of designing an information flow process(**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) according to claim 7 wherein the SDF input screen displays an information provider activity name, an input information name, a detailed activity name, an output information name and an information consumer activity name (**Scullo**, page 300, Process-Sequence Diagrams).

Claim 9
The method of designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) according to claim 1 further comprising additional steps of: displaying a service function design table based upon information from the ER source information file (**Scullo**, page 300, Process-Sequence Diagrams), the service function design table. allowing a user to define a new service function; receiving user input data at least for systematization factors; and storing the systematization factors and the information in the service function design table as a new function description. (**Scullo**, page 300, Process-Sequence Diagrams).

Claim 10
The method of designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) according to claim 9 wherein the user input data includes activity contents and subjects (**Scullo**, page 279, user Interface).

Claim 11
The method of designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) according to claim 9 further comprising an additional step of printing the new function description(**Scullo**, page 300, process/matrix form),

Claim 12
The method of designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) according to claim 1 further comprising additional steps of: displaying a service information design table based upon information from the ER source information file(**Scullo**, page 300, Process-Sequence Diagrams), the service information design table allowing a user to define new service information; receiving user input data at least for systematization factors; and storing the systematization factors and the information in the service information design table as an input/output information overview(**Scullo**, page 300, process/matrix form).

Claim 13
The method of designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) according to claim 12 wherein the user input data includes activity contents and subjects(**Scullo**, page 300, process/matrix form) .

Claim 14
The method of designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) according to claim 12 further comprising an additional step of printing the input/output information overview (**Scullo**, page 240, persistence instead output to disk directed to screen or printer).

Claim 15
The method of designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) according to claim 1 further comprising additional steps of: selecting sequential pairs of the activity names (**Scullo**, page 300, processes & Tamaki, col2 , lines 30 – 40, activities) and the information names from the DFD matrix(**Scullo**, page 300, process/matrix form) ; storing the sequential pairs of the activity names and the information names into an event trace table; reading one of the activity names from the event trace table; displaying the one of the activity names in an event record column in an event trace diagram as per claim 1; reading a corresponding one of the information names from the event trace; and displaying the corresponding one of the information names in a row that corresponds to the one of the activity names in the event record column (**Scullo**, page 300, Process-Sequence Diagrams).

Claim 16
The method of designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) according to claim 15 further comprising an additional step of printing the event trace diagram (**Scullo**, page 240, persistence instead output to disk directed to screen or printer).

Claim 17
A medium storing a computer program for designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) , the computer program performing the tasks of: determining a predetermined set of activity names (**Scullo**, page 300, processes &

Tamaki, col2 , lines 30 – 40, activities) in a predetermined sequence (**Scullo**, page 300, Process-Sequence Diagrams) , the activity names respectively representing certain service operations; displaying the activity names as information provider activity names and information consumer activity names according to the predetermined sequence(**Scullo**, page 300, Process-Sequence Diagrams) in a predetermined data flow definition (DFD) matrix format(**Scullo**, page 300, process/matrix form) ; specifying an information name, one of the information provider activity names and a corresponding one of the information consumer activity names, the information name at a position in the predetermined DFD matrix format (**Scullo**, page 300, process/matrix form) representing data to be transmitted from the information provider activity name to the information consumer activity name; and storing the relations among the information provider activity names, the information names and the information consumer activity names in an entity relation (ER) source information file. As per claim 1. **Scullo** teaches the ER diagram for identifying data stores but does not teach the theory reduced to practice. It is **Tamaki** who teaches the implementation by implementing the matrix in rows and columns (stored on a disk) (**Tamaki,** col 1, lines 10 – 15), Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the 1994 teaching of Scullo with the 1991 filed Tamaki reference because Information Engineering enables one to identify and develop well defined interfaces among components

Claim 18
The medium storing a computer program for designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) according to claim 17 further performing additional tasks of: modifying the activity ames(**Scullo**, page 300, processes & Tamaki, col2 , lines 30 – 40, activities) ; and updating said displaying of the activity names in the predetermined DFD matrix format(**Scullo**, page 300, process/matrix form) ; and storing the modified activity names in the ER source information file. (**Scullo**, source information file)

Claim 19
The medium storing a computer program for designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) according to claim 17 further performing additional tasks of modifying the predetermined sequence(**Scullo**, page 300, Process-Sequence Diagrams) for the activity names(**Scullo**, page 300, processes & Tamaki, col2 , lines 30 – 40, activities) ; and updating said displaying the activity names in the predetermined DFD matrix format (**Scullo**, page 300, process/matrix form) according to the modified predetermined sequence(**Scullo**, page 300, Process-Sequence Diagrams) ; and storing the modified predetermined sequence of the activity names in the ER source information file. (**Scullo**, source information file).

Claim 20
The medium storing a computer program for designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) according to claim 17 further performing additional tasks of: modifying the information names; and updating said displaying of the information names in the predetermined DFD matrix format (**Scullo**, page 300,

process/matrix form) ; and storing the modified information names in the E-R source information file. (**Scullo**, source information file).

Claim 21
The medium storing a computer program for designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) according to claim 17 further performing additional tasks of: modifying the positions of the information names; and updating said displaying the information names in the predetermined DFD matrix format (**Scullo**, page 300, process/matrix form) at the modified positions; and storing the modified positions of the information names in the ER source information file. (**Scullo**, source information file).

Claim 22
The medium storing a computer program for designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) according to claim 17 further performing additional tasks of further determining associated detailed activities of a selected one of the activity names(**Scullo**, page 300, processes & Tamaki, col2 , lines 30 – 40, activities) ; updating said displaying the activity names in the predetermined DFD matrix format(**Scullo**, page 300, process/matrix form) based upon the associated detailed activities; and storing the activity names with the associated detailed activities in the ER source information file. (**Scullo**, source information file).

Claim 23
The medium storing a computer program for designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) according to claim 22 wherein said further determining task additionally includes the tasks of preparing a structure data flow (SDF) input screen based upon the ER source information file; and receiving user input data for the associated detailed activities via the SDF input screen (**Scullo**, Page 279. Interface).

Claim 24
The medium storing a computer program for designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) according to claim 23 wherein the SDF input screen displays an information provider activity name, an input information name, a detailed activity name, an output information name and an information consumer activity name. (**Scullo**, page 300, data flows to identify producers and consumers).

Claim 25
The medium storing a computer program for designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) according to claim 17 further performing additional tasks of displaying a service function design table based upon information from the ER source information file(**Scullo**, page 300, Process-Sequence Diagrams), the service function design table, allowing a user to define a new service function; receiving user input data at least for systematization factors; and storing the systematization factors and the information in the service function design table as a new function description. (**Scullo**, page 300, process/matrix form).

Claim 26
The medium storing a computer program for designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) according to claim 25 wherein the user input data includes activity contents and subjects (**Scullo**, page 300, process/matrix form) .

Claim 27
The medium storing a computer program for designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) according to claim 25 further comprising an additional task of printing the new function description (**Scullo**, page 240, persistence instead output to disk directed to screen or printer).

Claim 28
The medium storing a computer program for designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) according to claim 17 further comprising additional tasks of: displaying a service information design table based upon information from the ER source information file(Scullo, page 300, Process-Sequence Diagrams), the service information design table allowing a user to define new service information; receiving user input data at least for systematization factors; and storing the systematization factors and the information in the service information design table as an input/output information overview.

Claim 29
The medium storing a computer program for designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) according to claim 28 wherein the user input data includes activity contents and subjects (**Scullo**, page 300, process/matrix form).

Claim 30
The medium storing a computer program for designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) according to claim 28 further comprising an additional step of printing the input/output information overview (**Scullo**, page 240, persistence instead output to disk directed to screen or printer).

Claim 31
The medium storing a computer program for designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) according to claim 17 further comprising additional tasks of: selecting sequential pairs of the activity names (**Scullo**, page 300, processes & Tamaki, col2 , lines 30 – 40, activities) and the information names from the DFD matrix (**Scullo**, page 300, process/matrix form) ; storing the sequential pairs of the activity names and the information names into an event trace table; (**Scullo**, page 300, Process-Sequence Diagrams) reading one of the activity names from the event trace table; displaying the one of the activity names in an event record column in an event trace diagram; reading a corresponding one of the information. names from the event trace; and displaying the corresponding one of the

information names in a row that corresponds to the one of the activity names in the event record column (**Scullo**, page 300, Process-Sequence Diagrams). As per claim 1

Claim 32
The medium storing a computer program for designing an information flow process (**Scullo**, page 290, "Information engineering ....." and pages 296 - to 303) according to claim 31 further comprising an additional task of printing the event trace diagram (**Scullo**, page 240, persistence instead output to disk directed to screen or printer).

Correspondence Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Todd Ingberg whose telephone number is (571) 272-3723. The examiner can normally be reached on during the work week..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is 571 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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TI